CI-MSI-22

Collaborative Intercom Microphone / Speaker Interface

The Tech Works CI-MSI-22 Microphone Speaker Interface is part of the Collaborative Intercom product group. Designed to take a variety of Audio Intercommunication products and let them talk to each other over the Tech Works CI-Buss.

The CI-MSI-22 consists of five Functional Modules; Two Inputs; The local Microphone/Line Input and the PA-BUSS Input, Two Outputs; a 25 Volt Speaker Output and the PA-BUSS Output, and the CI-BUSS Interface. The Jumper Options determine how these Modules interact and function with each other. The "Standard Configuration" is a Remote (Single Location) for use with an Operator Console. The Power Amplifier, is used for a Procedure Room Speaker while the Microphone Input is used for a shotgun microphone, boom mounted or hanging Procedure Room Microphone. The PA-OUT, is used as Procedure Room Monitor Output, perhaps for Background Music. The PA-IN, may be used for an additional Microphone or other line level inputs. The CI-BUSS may be used with other Interfaces, such as a CI-HSI-41 or the CI-ODC.

Initial setup is accomplished with built in level indicator lights and the controls. Once completed, no further adjustments should be required. Integral ALC, Variable Notch Filters, and Speaker Ducking allow for full duplex conversations without feedback.

The CI-MSI-22 can be used in a small Intercom when connected to a single CI-Buss product or as an addition to larger systems using Headsets, and a variety of CI-Buss and PA-Buss devices. The Intercom simply plugs together using standard CAT-6 patch cables. When connected to another CI-Buss unit all headsets, speakers and microphones become part of that system. The CI-MSI-22 provides a level of flexibility and control unmatched in handsfree, full duplex, communication.

BENEFITS

- Superior Sound Quality
- Low Cost
- Total Flexibility
- Easy Set Up
- Simple Integration

Associated Equipment

PA-402	Program & Paging Amplifier
CI-HSI-41	Collaborative Intercom Headset Interface
CI-ODC-1	Collaborative Intercom Operator Desk Console

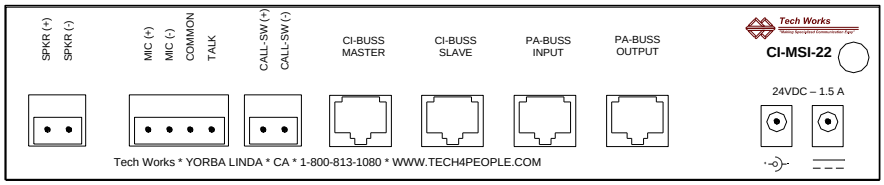
Design Information

Power	24V DC @ 1.0A Max (Power Supply Not Included)
Color	Light Gray Metal Enclosure
Mounting	Wall / Backboard / Half Rack
Dimensions	8.6” W x 6” D x 1.75” H
Weight	2.6 lbs.

Architects' and Engineers' Specifications

A Microphone, Speaker Interface must be provided for this project to have hands-free full duplex communication in the Procedure Room. The Microphone, Speaker Interface must be capable of articulate voice pickup from a professional cardioid condenser microphone and clear listening from an industry standard 25 volt speaker without feedback. The system shall include band pass filters, narrow band notch filters and adjustable ducking for tuning the system to the room acoustics while maintaining full duplex communication. The system must include Automatic Level Control and the Collaboration Intercom interface for connection to other Tech Works CI-BUSS devices for a complete and operable system. System connections must be via industry standard CAT-6 patch cords. The Microphone, Speaker Interface shall operate from a separate UL Listed 24 VDC 1 Amp power source. The Microphone, Speaker Interface shall be Tech Works Model CI-MSI-22

Rear View and Connections



Speaker Output:
Two Position Euro-Style Barrier Strip:
Speaker (+)
Speaker (-)
25-Volts, 10-Watts Maximum

Microphone Input:
Four Position Euro-Style Barrier Strip:
Universal Microphone/Line Input (+)
Universal Microphone/Line Input (-)
Shield/Switch Common
Talk Switch (N.O.)

Configured for a Microphone Level Input:
2000 Ohms Balanced
-75dBm or -60dBm (Selectable) minimum input (Balanced) for full rated output
Selectable Equalization - 3 settings optimized for voice communication
Selectable Phantom Power (22 Volts, Short Circuit Protected)

Configured for a Line Level Input:
2000 Ohms Balanced, 1000 Ohms Unbalanced
Balanced input -35dBm to +5dB or -20dBm to +20dB Accommodation range (Selectable)
Un-Balanced Input -30dBm to +10dB or -10dBm to +20dB Accommodation range (Selectable)

Call Switch:
Two Position Euro-Style Barrier Strip:
Call Switch (+), (N.O.)
Call Switch (-)
Call Switch must Float W.R.T. Common

RJ-45, CI-BUSS, “Master” Connector
RJ-45, CI-BUSS, “Slave” Connector
RJ-45, PA-BUSS, Line Input Connector, Optionally Powered
RJ-45, PA-BUSS, Output Connector, Always Powered
Maximum available PA-BUSS Power is: 23 Volts @ 350MA

Power Connectors: (Two)
3.5mm Barrel Connectors
24Volts, 1.5 Amps Maximum, depending on Speaker load

Chassis, Earth Ground
Hex Nut
The Chassis is connected to Circuit Common through a 1-Meg-Ohm resistor

For further system set up and adjustment please see the System Planning Guide.